

## **Abstract**

Compositions containing a knob attached to a specific site of a protein and methods of  
5 producing and using these compositions are disclosed. The compositions comprise a knob, a tail  
portion and a protein portion. The protein portion contains a substituted cysteine residue at the  
desired location of labeling. The tail portion is located at the terminal end of the protein portion.  
The knob is linked to the end of the tail portion and contains a cysteine residue. The substituted  
cysteine residue on the protein portion and the cysteine residue on the knob form a disulfide  
10 bond, thereby tagging the protein portion at the desired site with the knob.

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